EA Form R 1/2007

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. *Applicant/Contact name and address*: Springhill Ranch
R. Kip Stenson
PO Box 117
Dupuyer, MT 59432

2. *Type of action*: 30029733 41M : Application to Change a Water Right Statement of Claim #41M 28439 00

3. *Water source name*: Sheep Creek, Tributary of Dupuyer Creek and the Two Medicine River

4. *Location affected by project*: The proposed change includes the two points of diversion to be located in the SWNENE of Sec. 20 and the SENWNW of Sec. 21 all in T28N, R8W, Pondera County. The proposed place of use is comprised of 139 acres located in portions of Sections 20 and 21, all in T28N, R8W, Pondera County.

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*: The applicant is seeking a change in the location of their points of diversion and place of use and maximum acres not currently included in their Statement of Claim #41M 28439 00. The maximum historical flow rate of 6.25 cfs and 421.8 acre feet of volume have been used to flood irrigate 175 acres with a stated efficiency rating of 60%. The purpose of the proposed changes is to irrigate 139 acres of cropland with 3.3 cfs up to 285.7 Ac. Ft. from April 20th to October 10th inclusive of each year. Water from Sheep Creek is to be diverted from two proposed points of diversion. The water will then be applied to the place of use via a sprinkler process utilizing two pivots and three wheel lines. The stated efficiency rating is 70%. The applicant's states the benefits of the project as proposed as being enhanced water use efficiency and ease of management.

The DNRC shall issue an authorization to change if the applicant proves the criteria in 85-2-402, MCA, are met.

6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana State Historic Preservation Office
Natural Resources Conservation Service (NRCS) Soils Data Website
Dept. of Environmental Quality Website (TMDL 303d listing)
MT Dept. of Fish, Wildlife & Parks Website (Montana Rivers Information System)
National Wetlands Inventory Website

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: Sheep Creek is not currently classified as a chronically or periodically dewatered stream by the Dept. of Fish, Wildlife, and Parks (DWFP) from the headwaters to the confluence of Dupuyer Creek. DFWP does not have an instream flow quantified within the stream reach that was identified in the Application to Change a Water Right. Impacts to current stream conditions that would worsen an already dewatered stream condition appear to have a negligible effect on the source if a change authorization is granted as currently proposed.

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: Sheep Creek, tributary to Dupuyer Creek has not been assessed in any TMDL 303d reports from the Montana Department of Environmental Quality (DEQ) from information obtained from their website and from GIS data obtained through the Natural Resources Information System (NRIS) website. Total effects to water quality are unknown based on lack of data. Effects to water quality are expected to be minimal due to the similar nature of historic vs. proposed use of water.

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: Historical data is not available to assess any positive or negative impacts to groundwater resources and are therefore unknown. Where the change involves surface water from Sheep Creek, no significant impact is anticipated.

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: The change in diversion works as proposed would involve minimal stream channel modification with the construction of two rock type diversion structures that are to divert water to a wet well pipe. Each of the structures is similar in design per schematics supplied by the applicant and approved as such by the NRCS. The water will then be pumped by centrifugal pumps to supply the specified flow to the irrigation wheel lines and pivots. Impacts to stream channel conditions, flow modifications and any barriers are not expected to change significantly from historic usage. Affects to riparian areas along the stream channel should be negligible and limited in scope to the construction phase of the proposed project. No dams or well construction are involved with the proposed plan and therefore not applicable.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: According to the information provided by the Montana Natural Heritage program, there are two records of species of concern in the vicinity of the proposed project. The species identified are the Gray Wolf and the Grizzly Bear. This application is for a change in location of points of diversions and places of use that are in substantially the same location as what has been historically used. Where the continued use as proposed is to be irrigated crop production, no significant impact is anticipated from the proposed changes.

Wetlands *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: Wetlands identified from GIS mapping of the proposed project utilizing NWI data are the following: Wetland Type as Freshwater Forested/Shrub Wetland Palustrine, Scrub-

Shrub, Temporarily Flooded. Wetland Type as Freshwater Emergent Wetland, Palustrine, Emergent, Saturated and Palustrine, Emergent, Seasonally Flooded.

Impacts to the wetlands that were identified as Freshwater Forested/Shrub/Scrub are expected to be negligible to slightly improving as the proposed change in appropriation anticipates more water to be left in the source as a result of the developments. The wetlands identified as Freshwater Emergent Saturated/Seasonally Flooded may be diminished by the conversion from flood irrigation to sprinkler irrigation due to the decrease in return flows available that contribute to temporary flooding of the identified wetland areas. Impacts to the seasonally flooded areas are not expected to be significant by the proposed project.

Ponds **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: No ponds or reservoirs are associated with the proposed project and therefore not applicable.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: Data from the NRCS soils website indicate four soil types within the proposed project area. Two soil types dominate by occupying 87% of the historical and proposed place of use. The dominate soil types are identified as Ridgelawn-Nesda-Korchea complex, 0-2 percent slopes, occasionally flooded and Korchea-Ridgelawn loams, 0-2 percent slopes, occasionally flooded. Degradation of soil quality, alteration of soil stability or moisture content is expected to be minimal to non existent. Saline seepage in the area does not appear to be problematic nor does the proposed change in the right to appropriate appear to worsen any saline seepage problems.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: There will be some stream bank disturbance during the construction process as proposed. The banks of Sheep Creek are primarily native vegetation. The construction of the rock and steel wet well diversion design along with means of conveyance pumps and pipe should not have a significant impact to existing vegetative cover. However it is the applicant's responsibility to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: The applicant included plans in their application to incorporate two diesel engine driven centrifugal pumps. Impacts to air quality will change slightly, though minimal impacts to air quality are anticipated.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: According to the Montana State Historical Society (SHPO), there have been no previously recorded sites within the point of diversion area. The only ground disturbance that is to take place is in association with the construction of the point of diversion and means of conveyance. The remainder of the proposed project has been developed and put to use for some time. As such, any potential site disturbance has already taken place. The SHPO can be consulted at the private property owner's discretion.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No additional impacts on other environmental resources were identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known environmental plans or goals in this area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: The project should have no significant or harmful impact on recreational or wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: The development should have no impact on human health.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
Yes___ No_x_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: No adverse effect on private property rights is anticipated from this development.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* No significant impact.

(b) *Local and state tax base and tax revenues?* No significant impact.

(c) *Existing land uses?* No significant impact as the proposed project is consistent with other land uses in the region.

(d) *Quantity and distribution of employment?* No significant impact.

(e) *Distribution and density of population and housing?* No significant impact.

(f) *Demands for government services?* No significant impact.

(g) *Industrial and commercial activity?* No significant impact.

(h) *Utilities?* No significant impact.

(i) *Transportation?* No significant impact.

(j) *Safety?* No significant impact.

(k) *Other appropriate social and economic circumstances?* No significant impact.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts? No secondary impacts have been identified.

Cumulative Impacts? No cumulative impacts have been identified.

3. ***Describe any mitigation/stipulation measures:*** None

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

No action alternative:

The applicant would not be able to develop their sprinkler irrigation project as proposed. The applicant's management of irrigation water would continue without the previously stated benefits.

Alternative 1:

Approve the change application if the applicant proves the statutory criteria have been met.

PART III. Conclusion

1. ***Preferred Alternative:*** Alternative 1.

2. ***Comments and Responses:*** None

4. ***Finding:***
*Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant impacts have been identified, therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:

Name: Matt Miles
Title: Water Resources Specialist
Date: 04/08/2008